Release notes for ENDF/B Development n-048_Cd_112 evaluation



April 26, 2017

• groupie Errors:

1. Very small elastic cross section found θ : Small elastic

• fudge-4.0 Errors:

1. Calculated and tabulated Q values disagree. reaction label 10: n[multiplicity:'2'] + Cd111 (Error # 0): Q mismatch

WARNING: Calculated and tabulated Q-values disagree: -8886397.982711792 eV vs -9397104. eV!

2. Calculated and tabulated Q values disagree. reaction label 11: n[multiplicity:'3'] + Cd110 (Error # 0): Q mismatch

WARNING: Calculated and tabulated Q-values disagree: -15862243.94763184 eV vs -1.6374e7 eV!

3. Calculated and tabulated Q values disagree. reaction label 12: n + H1 + Ag111 (Error # 0): Q mismatch

WARNING: Calculated and tabulated Q-values disagree: -9140850.792922974 eV vs -9641904. eV!

4. Calculated and tabulated Q values disagree. reaction label 13: n + H2 + Ag110 (Error # 0): Q mismatch

WARNING: Calculated and tabulated Q-values disagree: -15747770.1943512 eV vs -1.6265e7 eV!

5. Calculated and tabulated Q values disagree. reaction label 14: n + H3 + Ag109 (Error # 0): Q mismatch

WARNING: Calculated and tabulated Q-values disagree: -16299737.07066345 eV vs -1.681e7 eV!

6. Calculated and tabulated Q values disagree.

reaction label 15: Cd113 + qamma (Error # 0): Q mismatch

WARNING: Calculated and tabulated Q-values disagree: 7047996.72454834 eV vs 6539802. eV!

7. Calculated and tabulated Q values disagree. reaction label 16: n + He4 + Pd108 (Error # 0): Q mismatch

WARNING: Calculated and tabulated Q-values disagree: -2973210.812744141 eV vs -3479902. eV!

8. Calculated and tabulated Q values disagree. reaction label 17: $H1 + Ag112_s$ (Error # 0): Q mismatch

WARNING: Calculated and tabulated Q-values disagree: -2665794.657562256 eV vs -3176002. eV!

- 9. Calculated and tabulated Q values disagree. reaction label 18: H2 + Ag111_s (Error # 0): Q mismatch
 - WARNING: Calculated and tabulated Q-values disagree: -6916284.691986084 eV vs -7416804. eV!
- 10. Calculated and tabulated Q values disagree. reaction label 19: $H3 + Ag110_{-s}$ (Error # 0): Q mismatch
 - WARNING: Calculated and tabulated Q-values disagree: -9490537.253738403 eV vs -1.0003e7 eV!
- 11. Calculated and tabulated Q values disagree. reaction label 20: He3 + Pd110-s (Error # 0): Q mismatch
 - WARNING: Calculated and tabulated Q-values disagree: -8583322.105392456 eV vs -9104704. eV!
- 12. Calculated and tabulated Q values disagree. reaction label 21: He4 + Pd109_s (Error # 0): Q mismatch

WARNING: Calculated and tabulated Q-values disagree: 3180393.2474823 eV vs 2698002. eV!

- njoy2012 Warnings:
 - Message comes from several resonance types that do not support the calculation of angular distributions. Some of them can be used if Want_SAMRL_RM or Want_SAMRML_BW are true.
 - reconr...reconstruct pointwise cross sections in pendf format (0): RECONR/calculation of angular distribution not installed (0)
 - ---message from rdf2bw---calculation of angular distribution not installed. samm max legendre order: 0
 - 2. With the advent of the ENDF-6 format, it is possible to make evaluations that fully describe all the products of a nuclear reaction. Some carry-over evaluations from earlier ENDF/B versions also have this capability, but many do not. This message is intended to goad evaluators to improve things!

 groupr...compute self-shielded group-averaged cross-sections (0): GROUPR/conver
 - ---message from conver---cannot do complete particle production for mt= 16 only mf4/mf5 provided
 - 3. With the advent of the ENDF-6 format, it is possible to make evaluations that fully describe all the products of a nuclear reaction. Some carry-over evaluations from earlier ENDF/B versions also have this capability, but many do not. This message is intended to goad evaluators to improve things!

 groupr...compute self-shielded group-averaged cross-sections (1): GROUPR/conver (0)
 - ---message from conver---cannot do complete particle production for mt= 17 only mf4/mf5 provided
 - 4. With the advent of the ENDF-6 format, it is possible to make evaluations that fully describe all the products of a nuclear reaction. Some carry-over evaluations from earlier ENDF/B versions also have this capability, but many do not. This message is intended to goad evaluators to improve things!

 groupr...compute self-shielded group-averaged cross-sections (2): GROUPR/conver (0)

- ---message from conver---cannot do complete particle production for mt= 22 only mf4/mf5 provided
- 5. With the advent of the ENDF-6 format, it is possible to make evaluations that fully describe all the products of a nuclear reaction. Some carry-over evaluations from earlier ENDF/B versions also have this capability, but many do not. This message is intended to goad evaluators to improve things!

 groupr...compute self-shielded group-averaged cross-sections (3): GROUPR/conver
 - ---message from conver---cannot do complete particle production for mt= 28 only mf4/mf5 provided
- 6. With the advent of the ENDF-6 format, it is possible to make evaluations that fully describe all the products of a nuclear reaction. Some carry-over evaluations from earlier ENDF/B versions also have this capability, but many do not. This message is intended to goad evaluators to improve things!

 groupr...compute self-shielded group-averaged cross-sections (4): GROUPR/conver (0)
 - ---message from conver---cannot do complete particle production for mt= 32 only mf4/mf5 provided
- 7. With the advent of the ENDF-6 format, it is possible to make evaluations that fully describe all the products of a nuclear reaction. Some carry-over evaluations from earlier ENDF/B versions also have this capability, but many do not. This message is intended to goad evaluators to improve things!

 groupr...compute self-shielded group-averaged cross-sections (5): GROUPR/conver (0)
 - ---message from conver---cannot do complete particle production for mt= 33 only mf4/mf5 provided
- 8. With the advent of the ENDF-6 format, it is possible to make evaluations that fully describe all the products of a nuclear reaction. Some carry-over evaluations from earlier ENDF/B versions also have this capability, but many do not. This message is intended to goad evaluators to improve things!

 groupr...compute self-shielded group-averaged cross-sections (6): GROUPR/conver (0)
 - ---message from conver---cannot do complete particle production for mt= 91 only mf4/mf5 provided